



Modern Approaches to the Treatment of Viral Stomatitis in Children

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Abstract: In this article, the epidemiology, etiology of acute herpetic stomatitis in children, pathogenesis, clinic and modern methods of its treatment, as well as this disease

Preventive measures to prevent the transition to the chronic form are highlighted.

Key words: herpes, stomatitis, antiviral treatment, infection.

Relevance

Acute herpetic stomatitis (AHS) occupies a leading position among viral oral mucosal infections in children. According to epidemiological studies of a number of domestic and foreign authors, prevalence of this disease ranges from 50 to 100%, of which 20% have some clinical manifestations in the oral cavity. 86.7% population in the world are herpetic virus carriers.

In recent years, there has been a trend towards an increase in the incidence of acute herpetic stomatitis. The prevalence of this disease in children under 3 years old is 70%, which indicates a socially significant problem of this disease. [1,3,6].

Virus infection occurs when transmission of the virus with biological media airborne, contact, transplacental, blood transfusion and sexually.

In recent years, a number of scientific research for the purpose of diagnosis, treatment and effectiveness prevention of acute herpetic stomatitis in children.

Pathological processes in viral diseases are cumulative result of direct effects of viruses on the host organism and tissue damage in an immune response.

“... one of the reasons for the high spread of acute herpetic stomatitis in young children is morphological features of the child organism: high permeability histohematic barriers, low level immune reactivity and age features of the structure of the mucous membrane oral cavity in children: thin epithelial cover, low glycogen levels and nucleic acids, looseness of the basal membranes, low differentiation connective fibrous structures tissue, profuse vascularity. [3,4,6].

Despite numerous scientific medical research questions pathogenesis and treatment of acute hepatitis C is still remain the subject of further study. According to epidemiological studies of a number of domestic and foreign authors [9,11,12],

prevalence of this disease ranges from 50 to 100%, of which 20% there are some clinical manifestations in the oral cavity.

Herpes infection caused by HSV found in all countries and different climatic and geographical zones, frequency the occurrence of which varies widely limits depending on the population groups with different living standards [13,14,16].

Most countries in the world do not have mandatory registration of this pathology, therefore, the actual propagation frequency [17].

There are scientific publications that more intense and early transmission of herpes virus infection contributes to crowding and early identification of young children to preschool institutions [12,15,16].

In recent years, there has been a trend towards an increase in the incidence of children with acute herpetic stomatitis. The prevalence of this disease in children under 3 years old is 70% [14,17], which indicates a socially significant the problem of this disease.

Children of different ages suffer from ACS. groups, but most often OGS occurs in children over 6 months of age up to 3 years. This is explained by the fact that in this As children age, antibodies disappear received from the mother through the placenta. Except of this, morphological features of the structure of the oral mucosa at this age: high permeability of histohematological barriers, thin epithelial cover, not high levels of glycogen and nucleic acids, friability of the basement membrane, low differentiation of fibrous connective tissue structures, abundant vascularization. As a result of the formation immune system in the developing the child's body is characterized by the absence mature systems of specific immunity, low level of cellular reactions immunity, high fat content cells and their low functional activity [8,11,12].

Manifestation of herpes infection in acute herpetic stomatitis in children is also associated with frequent natural violations of the integrity oral mucosa due to teething. Pathological effects on viral diseases are the cumulative result of direct effects of viruses on the host organism and tissue damage in an immune response.

Virus infection occurs when transmission of the virus with biological media airborne, contact, transplacental, blood transfusion and sexually. Questions of the pathogenesis of AGS are still the subject further study. In all cases viral infection begins with adsorption viral particles and penetration of the virus into cell. Herpes simplex virus (HSV) is DNA-containing, refers to neurotropic group. Pathological its effect on the body with OGS manifests itself in the form of symptoms of intoxication nervous system: lethargy, drowsiness or increased excitability. Characteristic restless behavior, irritability, nausea, vomiting, fever, decreased or loss of appetite, headache pain, pain in muscles, eyeballs, large joints, adynamia, etc. [3,4,6].

Analysis of domestic and foreign literatures have shown the virus remains in child's body for life. Postponed once in a lifetime acute herpetic stomatitis (OHS) children become carriers virus or suffer from recurrent herpetic stomatitis (HS), herpes lips. Every 7-8 child who underwent ACS, suffers from relapsing diseases [5,7].

Clinical picture of AGS directly related to the state body's immune system, affects the development of the infectious process with herpes by changing the ratio components included in its composition. In children suffering from herpes infection, there are various manifestations immunodeficiency, which suggests acute herpetic stomatitis diseases of the immune system [6,8,10].

Acute herpetic stomatitis, as well as many other childhood infections disease, proceeds in mild, moderate severe and severe forms. Development of the disease goes through five periods: incubation, prodromal period of disease development, fading and clinical recovery [1,3].

During the development of the disease, distinguish two phases: catarrhal and rash of elements of the lesion. How noted above, after the virus enters the child's body occurs reproduction in local tissue cells and nearby lymph nodes. If the body's defenses cannot cope with the pathogen, then already in incubation period is observed primary viremia, the release of the virus in blood stream. It is assumed that entry of the herpes simplex virus into organs and tissues through the capillary barrier carried out by diapedesis. Virus, settling in the liver, spleen and other organs and tissues rapidly multiplies, there are tissue lesions as foci of necrosis.

Secondary viremia is characterized the appearance in the blood of a large amount virus after its increased multiplication in the indicated bodies. It is observed in prodromal period of the disease and in the first days of its peak [4].

During secondary viremia, viruses rush to the skin, mucous membranes, where their intracellular activity continues reproduction [2].

Symptoms of herpes simplex can be triggered by acute and chronic infectious diseases, fatigue, stress, injury, physical activity, excess insolation, hypothermia. AT observed in clinical practice secondary immunodeficiency states, the reasons for the development of which are difficult set [1,3,4].

The dependence of the severity of the flow OGS on the amount of virus isolated, which allows you to determine the duration disease and duration of treatment. [4,7].

Most researchers note symptoms of general intoxication [5,8]. Some authors point to malaise, headache sleep disturbance, vomiting, delirium. More often acute herpetic stomatitis as an independent disease, but sometimes can be combined with spicy respiratory viral infections and acute intestinal diseases. At examination of patients with acute herpetic stomatitis against the background of edematous and hyperemic mucosa small bubbles are found with a clear limited edges; size 1-5 mm with transparent content. With mild form there are 1-4 of them, with severe - up to several tens. Often joins phenomena gingivitis, lymphadenitis. Bubbles on oral mucosa most often not visible as they are very fast open, less common thick-walled vesicles exist 3-5 days. After they open, raids form in their place pale yellow or grayish white, when removed, the erosive surface bleeding and painful.

Bubbles can merge with each other, forming large lesions [3,6,8].

The period of extinction of the disease is more long, aphthae acquire a marble coloration, the edges and center of them are blurred. After epithelialization of elements are preserved symptoms of catarrhal gingivitis. More often mild forms of acute herpetic stomatitis occur in children at the first year of life. This is due to less contact with children, and on the other - the character nutrition: semi-liquid, soft, wiped, in mostly dairy food excludes trauma to the oral mucosa mouth. Use for breastfeeding milk, which to some extent has bactericidal properties, presence of antibodies in breast milk causes a smoother flow stomatitis [13,16].

Diagnosis of the presence of herpetic infections can usually be based on medical history and characteristics. However, in immunized individuals, confirmation of the diagnosis is required laboratory research. For the last decades in the field of molecular Biology has made many discoveries. From PCR analysis has become one of the most outstanding events. This discovery allowed to raise medical diagnosis to a new level. Among patients with acute and chronic herpetic stomatitis was carried out index score. Many researchers found that frequency of detection of herpes simplex virus by PCR in scrapings, statistically significantly higher than in the samples peripheral blood [4,6].

Long and numerous studies conducted both in our country and abroad, proved that in the vast majority in most cases pathological processes in the oral cavity, as a rule accompanied by dysbiotic changes in oral microflora fluid, which in turn leads to disruption of the local immune system.

Research has shown that complete elimination of the virus from the body impossible, one hundred defines a singularity modern approaches to therapy, focused primarily on latency virus, improving the effectiveness of local therapy, as well as prolongation of remission [4,6].

For the treatment of acute herpetic stomatitis are being developed and various methods of local and systemic therapy, widely used physiotherapy.

Even highly effective antivirus drugs used to treat OHSS showing a pronounced therapeutic effect, practically do not have prophylactic, against relapse action, as well as preventing or eliminating virus latency [2].

For the purpose of influencing the herpes virus various medicinal products are used forms: ointments, gels and rinses (0.25% oxolinic, tebrofen ointment, zovirax, viferon, interferon solutions).

From the early days of development diseases, given the etiology of this diseases, serious attention should given antiviral therapy. Houses in the period of rashes of elements lesions are recommended to be lubricated antiviral ointments and irrigate appropriate solutions oral cavity 15-20 minutes after eating, before cleaning the mouth of food debris single rinse with lysozyme (one egg white per half cup 0.5% novocaine solution or solution salt) or strong tea. To kid after treatment of the mouth is not recommended to eat 1- 2 hours.

In the treatment of herpes virus infection in children use the following immunotropic agents:

- 1) funds that replace the deficit immune factors, interferons, immunoglobulins, lysozyme;
- 2) means that stimulate the production interferons and increase activity other antiviral factors immunity - interferonogens - cycloferon, Viferon and many others.
- 3) immunostimulants, adaptogens are natural and synthetic drugs, capable of not only raising the level synthesis of interferons, but also significantly increase the activity of phagocytosis, as well as stimulate the function of the T and B systems lymphocytes - imudon, immunal drops, methyluracil.
- 4) immunomodulators that change the ratio of various links of immunity, - immunocorrectors (levamisole decaris), lycopid [3,5].

Clinical efficacy in the treatment of acute herpetic stomatitis with acute immunomodulators for evaluation organization of work in industrial enterprises is confirmed by the assessment local immunity of the oral cavity, such as the level of lysozyme and sIgA [3,5].

Lack of effective means providing relapse prevention exacerbations of herpes, led to the fact that long-term continuous use of the drug "Acyclovir" for some patients has become the only way to avoid repeated exacerbations [6,7]. Latest years in the treatment of mucosal diseases oral shells became popular application of physiotherapeutic methods treatment. Combination of physical factors exposure to drugs therapy allows you to provide therapeutic impact on both the main manifestations inflammatory and reparative changes in tissues of the oral mucosa and general factors contributing to increase its immunobiological stability and normalizing it homeostatic indicators. [5,7].

Conclusion

Despite the rich arsenal of methods and drugs for the treatment of diseases of the oral cavity and severe clinical course of this therapy pathology is still not completely resolved. Large percentage of chronization diseases leads to the search and development new treatments for acute herpetic stomatitis.

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